

PX 265

OpenCoin Inc.



Gateways
May 2013

The Ripple Ambition

Power Internet Commerce



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Summary

Ripple in Three:

1. Payment Network
2. Currency Exchange
3. Math-backed Currency

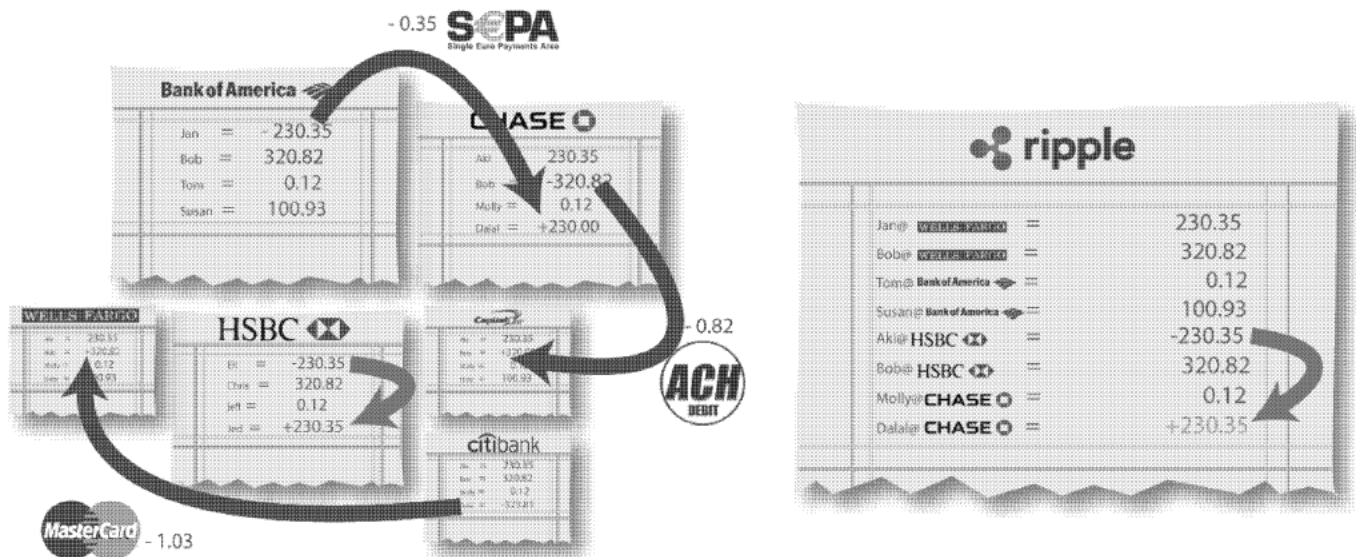


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What is a Payment Network? Revisited.

- An accounting ledger to track account balances, or;
- A pathway between different ledgers to enable interoperability ('intermediary')
- Ripple is both, at the same time – a common ledger to support the seamless transfer of payments without the need for interoperability
- A Common Ledger vs. Walled Gardens



Ripple is Protocol

(a) Free to Use

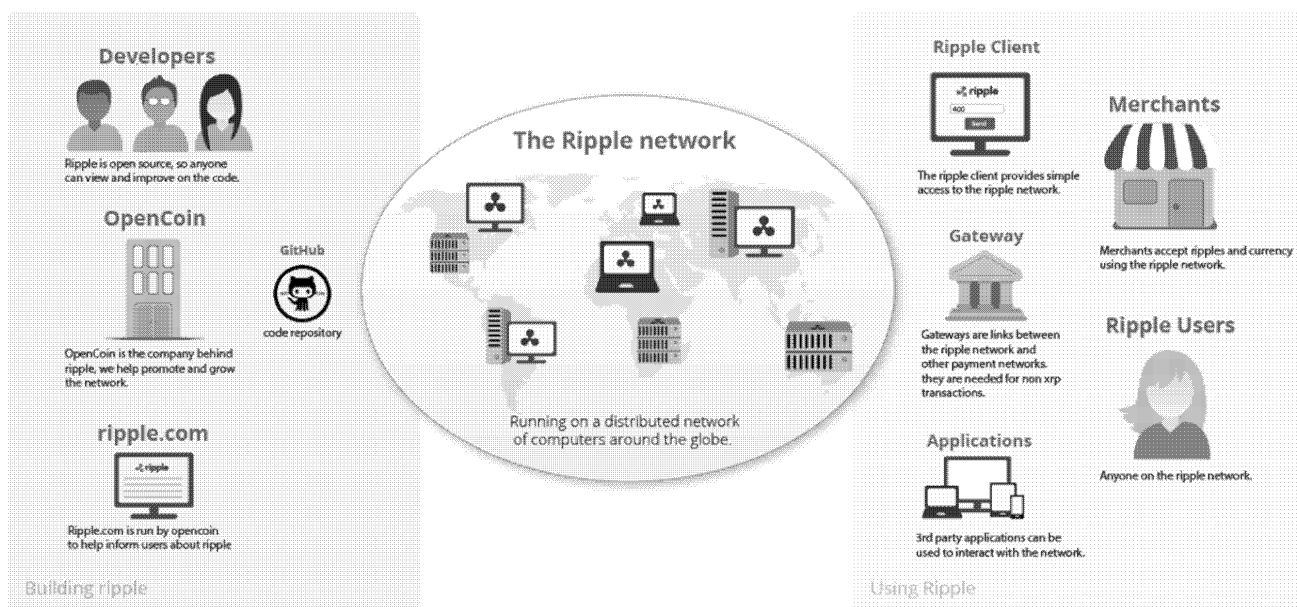
- Like http, Ripple contains request-response protocol
- Standards for transaction 'calls': send, receive, credit, trade, etc.
- Transact directly with any other node (person or institution) in the protocol
- Transact in any currency
- Decentralized system hosted on servers distributed around the world
 - No one owns Ripple
- Open for any developer to use without license, permission or fees
 - No network operator means no network operator fees



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The Ripple Eco-system



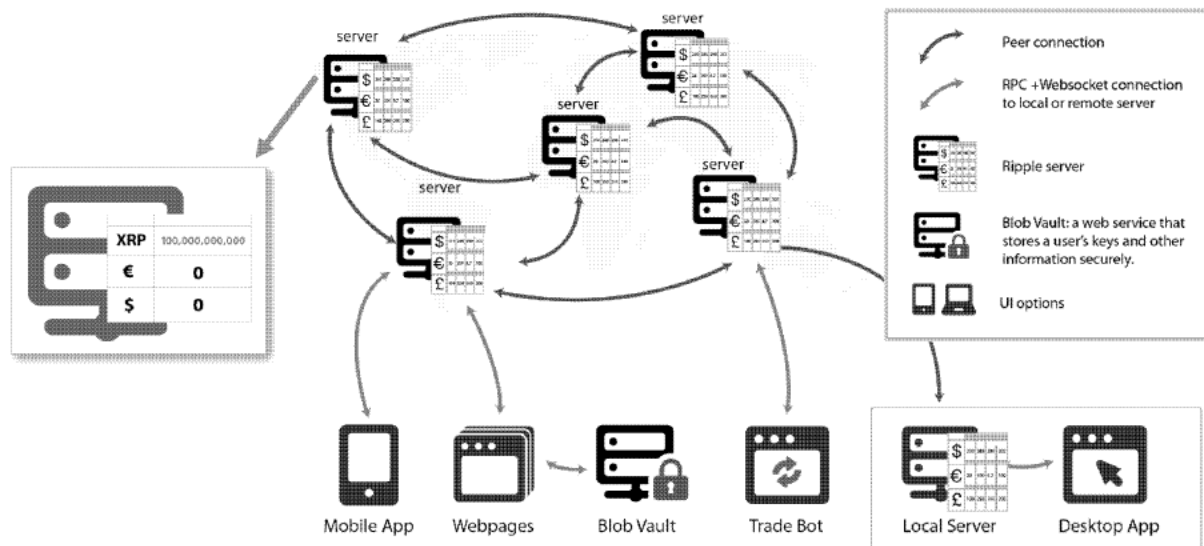
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Clearing through Consensus

(b) Instant & (c) Irreversible

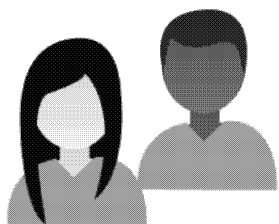
- Transactions that appear valid to the majority of servers are updated in the ledger
- When the ledger updates, all intervening transactions clear and settle
- Consensus is reached every <5 sec
- The state of the ledger cannot be reversed



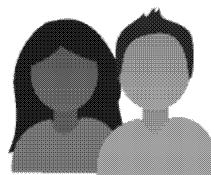
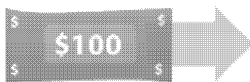
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Summary of Market Agents



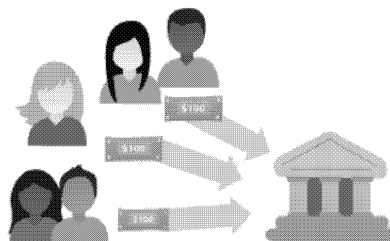
Buyers



Sellers



**Market Makers
(forex trading)**



**Gateways
(cash-in/out)**



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Gateways

Banks and Counterparty Risk

- Gateways are like banks
- They can be money transmitters, MSB's, FI's, or forex exchanges
- How does a bank work today?
 - A bank takes in cash deposits and issues a balance
 - The deposited cash is loaned out immediately
 - Since the bank no longer holds the cash, the depositor's balance is a liability—an IOU
 - IOU can be redeemed on demand (aka demand deposits)
 - IOU balances are stored and tracked (credits & debits) in the bank's *proprietary* ledger
- All debt instruments (IOU) carry counterparty risk:
“Will the asset be there when the debt claim is presented?”



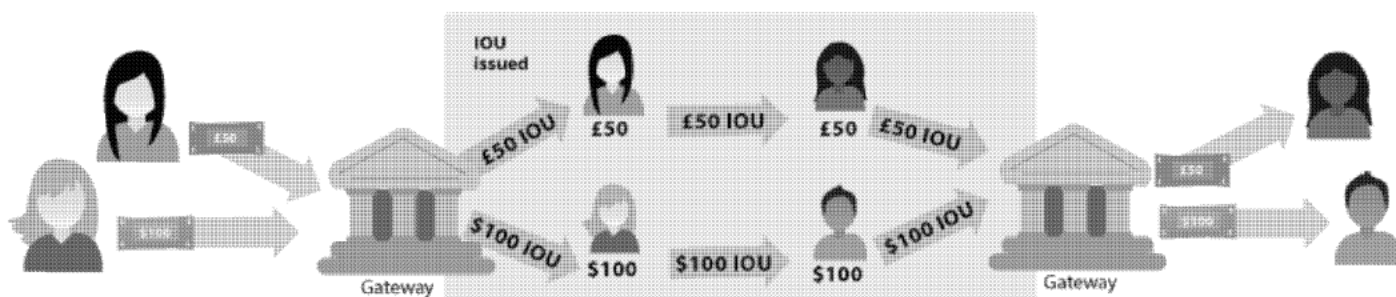
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Gateways

How to move cash into Ripple

- Ripple is a *common* ledger
- Each gateway takes deposits and issues a unique IOU into the ledger
- IOU can be transferred across the ledger without intermediaries
- IOU are redeemable for the deposit, on demand, at the issuing gateway
- Why? Revenue.



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Gateways

Revenue Opportunity

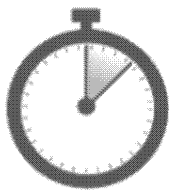
- Ripple protocol supports any fee structure for IOU issuance
- Possible Gateway Revenues:
 - Deposit Fee
 - Withdrawal Fee
 - Transfer Fee
- Fees can be flat or variable, but will be subject to market competition
 - Transfer Fees as Decaying Obligations
 - i.e., Bitstamp charges 0.20% every time their IOU is transferred from one account to another
- 'Aggressor' of transaction (i.e., buyer) pays any gateway fees



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Benefits



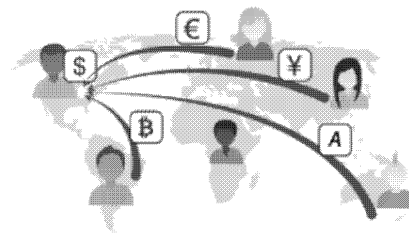
Instant



Free-'ish'



Irreversible



Global



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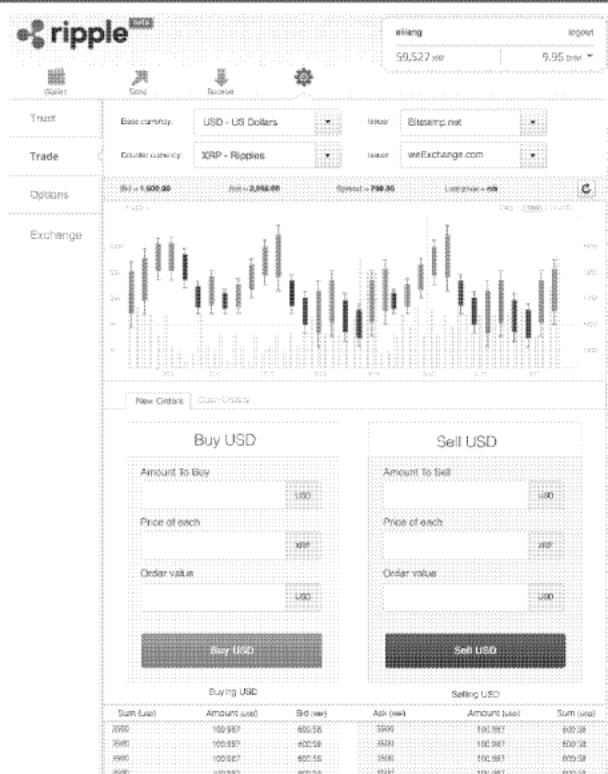
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Distributed Exchange

Global Distributed Exchange

(d) Global - Resolving Cross-Currency Transactions

- Anyone can create bid/ask offers for any currency pair & broadcast it across the protocol
- Why? To profit from forex spreads
- Ripple automatically moderates cross-currency transactions through the cheapest available bid/ask in the protocol
- This eliminates the need for external exchanges
- Supports algorithm-driven trading



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Benefits of the Distributed Exchange

Key Points

- 'Aggressor' of transaction (i.e., buyer) pays any forex spread
- Forex liquidity is determined by availability of bid/ask orders

Value Proposition

- Automatic cross-currency convertibility
- Merchants receive complete asking price
 - no network, issuer, or forex deductions
- No currency exposure:
 - Pay in preferred currency
 - Settle in preferred currency
- Wholesale forex spreads without intermediaries
- Arbitrage the Aggregate Internet Transaction Volume



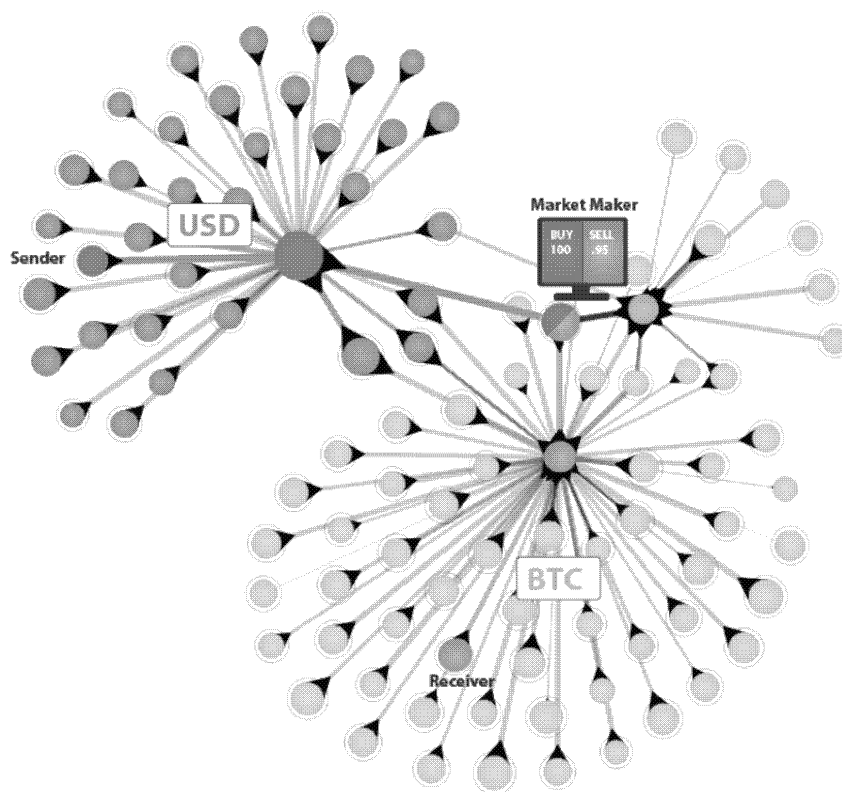
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Distributed Exchange

Distributed Exchange

Cross-currency transaction through a market-maker

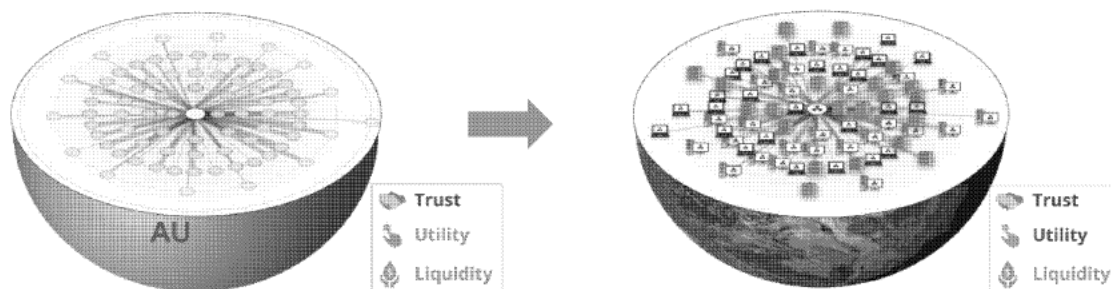


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Ripples (XRP) – the Currency

- **XRP is only one currency in Ripple. Ripple supports all currencies.**
- XRP uses cryptography to achieve monetary trust and utility:
 - Unit of Account – 100% divisible and numéraire
 - Medium of Exchange – liquid across any connected device
 - Store of Wealth – supply is fixed and counterfeit-proof
- Because XRP uses math as an ‘asset’ it exists virtually, inside the Ripple protocol.
- XRP in cyberspace is the equivalent to paper cash in the physical world



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The Role of XRP in Ripple

Security*

- Transaction Fee (0.000001 XRP is destroyed) prevents DDoS attacks
- Reserve requirements prevent ledger spam

*(Note: federation obfuscates the visibility of XRP)

Efficiency

- Forex - counterparty hedging (XRP trade freely with IOU); vehicle currency
- Eliminate costs - transact without issuer fees, without forex spreads
- Global currency for the Web – no counterparty risk or fees

Value

- XRP are deflationary as store of wealth
- XRP cannot be debased by anyone
- XRP is valued by its usefulness to Internet commerce



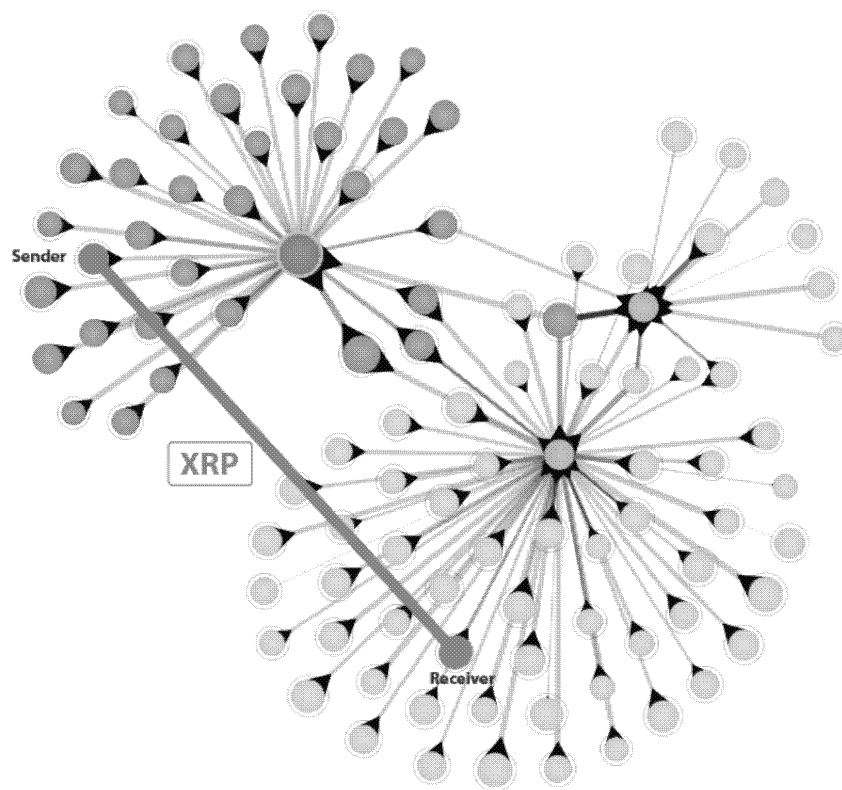
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Math-backed Currency

XRP

Payment without counterparty

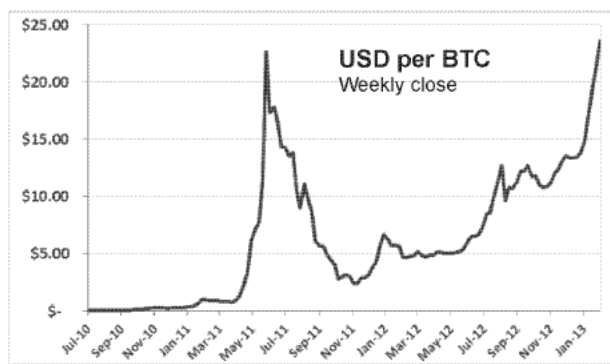


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The Business Model

Adoption of the Ripple Currency

- 100B unit supply that cannot be augmented (created/destroyed)
- Ripple's business model is based on the success of its native currency
 - OpenCoin will keep between 25% to 30% of all currency created
 - OpenCoin will sell to wholesale MSB's over time to fund itself
- Can a virtual currency really create and hold value? *Bitcoin proves it can.*



Launched in 2009, Bitcoin started trading below \$.05, then spiked to \$30 in mid-2011 before crashing to \$2. It has since reached record highs.



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OpenCoin Inc. vs Ripple

OpenCoin Inc.

- For-profit corporation
- OpenCoin owns all of the XRP at the outset
- Company mandates:
 1. Hire developers to contribute to the Ripple source code
 2. Hire BD/Sales/Marketing to promote the adoption of the Ripple protocol
 3. Administer the dispersal of XRP

Ripple

- Ripple is the open-source product
- No one owns Ripple

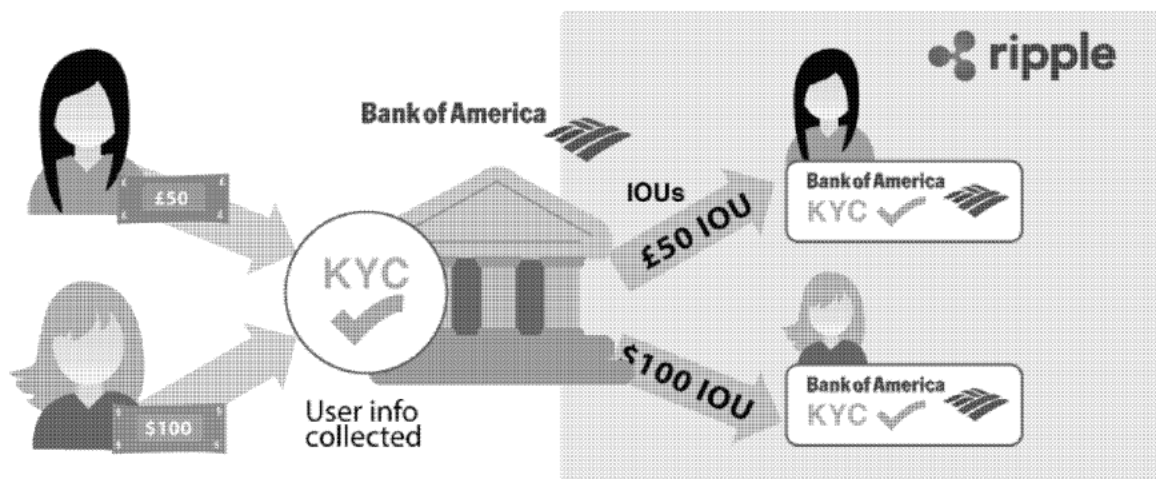


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Law Enforcement Gateway KYC Diligence

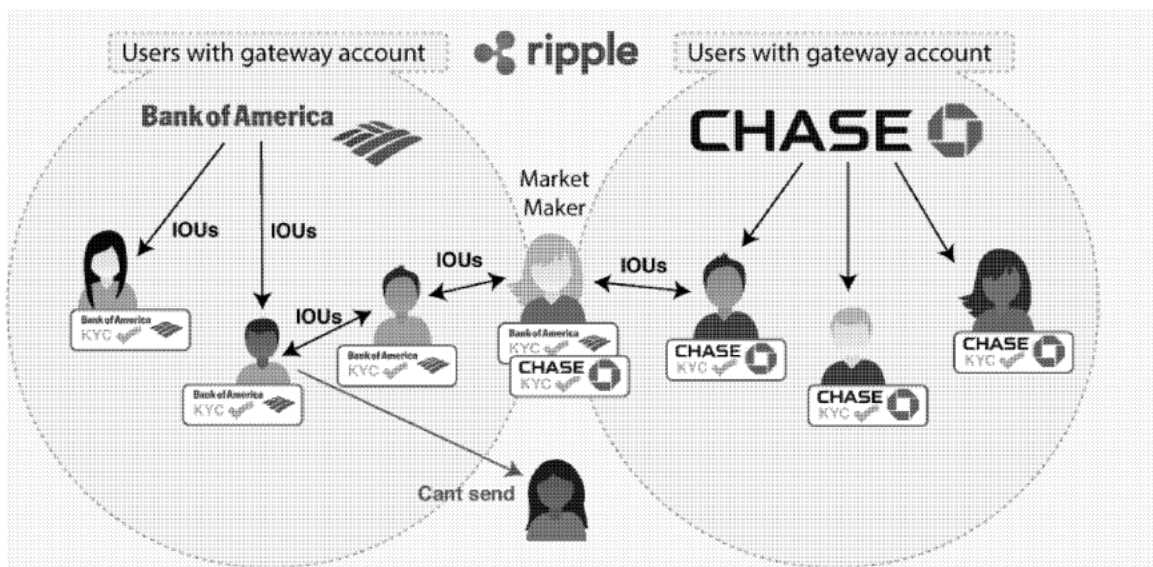
1. Gateways perform AML, BSA, KYC & links identity to Ripple Key
2. Shows each transaction and public key involved, which links to that key's activity



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Law Enforcement Gateway AML Controls

- Gateways stipulate who can hold their IOU when issuing
- By regulation, gateway will be required to govern the circulation of their IOU
- Gateway will subject every account holder to KYC



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OpenCoin Inc. Financial and Operating Highlights

- Distributed 500 million XRP so far (.5% of total)
- \$530,000 in XRP wholesale purchases to date
- [REDACTED]
- [REDACTED]
- [REDACTED]
- Hired [REDACTED] as tax and audit firm in Q1



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OpenCoin Inc. Investors

- Raised angel round of \$1.6 Million

- Investors include:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED] and [REDACTED]



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OpenCoin Founders and Team

Chris Larsen, CEO and co-founder

- CEO and co-founder, Prosper.com, 2004 to 2012: peer-to-peer lending marketplace
- CEO and co-founder, E-LOAN, 1996 to 2004: publicly traded online lender

Jed McCaleb, CTO and co-founder

- CTO and founder, [REDACTED], 1999 to 2005: creator of the [REDACTED] file sharing application
- CEO and founder, [REDACTED], 2010 to 2011: largest Bitcoin exchange, sold in 2011 to start this venture

David Schwartz, Chief Cryptographer

- Chief Technical Officer, [REDACTED] 2001-2011. Worked with NSA on cryptography

[REDACTED], Head User Engagement

- CEO [REDACTED], asian pop site. Cohost [REDACTED] show. Cofounder [REDACTED], consumer shopping mobile app

[REDACTED], Head Virality

- Creator "[REDACTED]". Cofounder [REDACTED]

Patrick Griffin, Head of Business Development

- Founding team at [REDACTED]. Built the sales and business development strategy and team

Arthur Britto, Software developer and co-founder

- Created one of the first ISP's and one of the first Bitcoin exchanges. Highly respected in Bitcoin community

[REDACTED], Software developer

- Early development contributor and leading voice for Bitcoin. Created [REDACTED], a popular Bitcoin portal

[REDACTED] UI designer

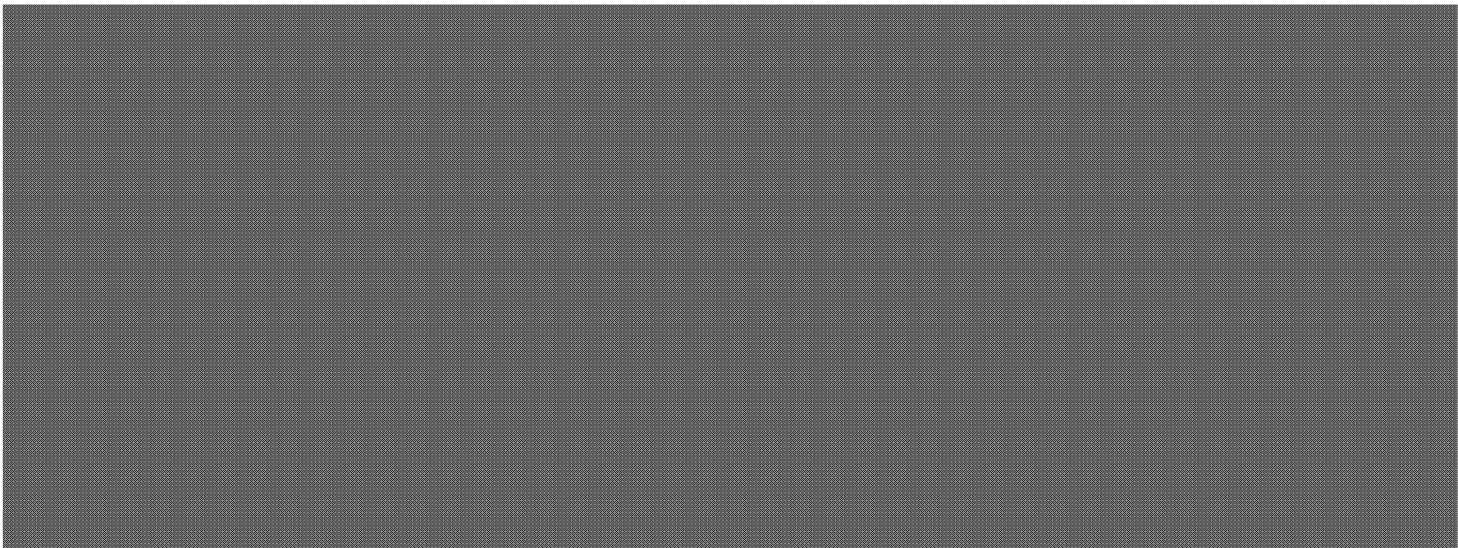
- Worked at [REDACTED], [REDACTED], [REDACTED], [REDACTED] and many others



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APPENDIX